Results of desmopressin urine concentration test at different ages

Age group (years)	No of subjects	Mean maximum osmolality (mmol/kg) ±SD
(A) 20-24	7	1044±73
(B) 25-29	3	983±48
(C) 30-34	3	983±152
(D) 35-39	6	935±82
(E) 40-44	8	894±95
(F) 45-49	3	926±143
(G) 50-54	8	873±142
(H) 55-59	5	909±91

patients aged 40-59 (864±164 mmol/kg). Thus although all subjects achieved a concentration which we would regard as normal our results suggest that urine-concentrating ability diminishes with advancing age. We have found no evidence of diminished ability as a consequence of various non-renal diseases.

We thank Dr J Lunn of the Staff/Student Health Service for his co-operation and Dr Brian Donovan, medical director of Ferring Pharmaceuticals Ltd, for the desmopressin.

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Cure of heterophobia by sexual surrogate therapy

SIR,—The *Index Medicus* contains no reference to sexual surrogate therapy, which is a recent development in the management of sexual dysfunction. It is essentially a behavioural technique based on the premise that sexual behaviour is at least partly the product of learning and conditioning. Sometimes sexual responses are absent or inappropriate and it may be difficult for patients to engineer suitable encounters in which to learn sexual skill and confidence. The disability may therefore be reinforced, especially if they also lack basic social skills. Prostitutes are a traditional source of experience in such cases, but most prostitutes are more interested in earning than in education and have little incentive to spend extra time with difficult clients.

Sexual surrogates see themselves primarily as therapists and educators, and financial considerations are either secondary or absent. They understand sexual anxieties and the need to discuss them and they establish a social relationship before proceeding to specifically sexual instruction. Surrogates have usually been employed to treat sexual dysfunction and anxiety in heterosexual men but can also be useful in managing sexual ambivalence.

The patient, a male student aged 22 with well-controlled asthma, was referred by the university health centre because of depression and difficulty in relationships with women. He was the only child of a rather puritanical family and had a poor relationship with both parents. At the age of 16 he spent a year as an inpatient in an adolescent unit and made a fairly serious suicide attempt. He was a good student and not short of friends but was so anxious about sexual failure that he avoided any sexual involvement and doubted if he could ever manage a sexual relationship. He masturbated to fantasies of muscular men with only occasional fantasies involving women, and his masturbatory technique was very unusual. He wondered whether he was homosexual but seemed to have no desire for actual physical contact with men. Since he had a rather asthenic physique the fantasies may have reflected feelings of shame about his own body.

After discussing various alternatives—including contact with homosexual groups—I suggested that surrogate therapy, which was available locally, might be the most useful approach. Initially he was rather opposed to the suggestion, maintaining that sex could not be separated from a "real" relationship and that he wanted to combine learning about sex with being in love. His reluctance diminished after a further serious suicide attempt when a girl rejected him, and he accepted that treatment was the lesser risk.

Over a period of four months he had nine sessions, of which the first six involved only talking or varying degrees of petting. During this period his masturbatory technique became more normal and more enjoyable. Men faded out of his fantasies and women faded in. Eventually he proceeded to full sexual intercourse on three occasions with complete success.

Since then he has remained much happier and although 12 months later he had not found "the right girl" he was confident that when he did there would be no sexual problem. He has neither needed nor requested further psychiatric consultation, there have been no more overdoses, and his asthma has not worsened.

This report demonstrates the value of surrogate therapy for patients who cannot overcome their sexual problems with other and less controversial techniques and indicates that it need not be restricted to those without a significant psychiatric history. It has not led either to promiscuity or to a change in his view of what constitutes the best form of sexual relationship. He has been able to accept surrogate therapy as a necessary prelude to his sexual maturity—as necessary for him, perhaps, as the stage of anxious adolescent groping through which many of us pass and to which few of us would wish to return.

I am grateful to Dr Martin Cole, Institute for Sex Education and Research, Birmingham, for his help with the treatment and his advice in the preparation of this report.

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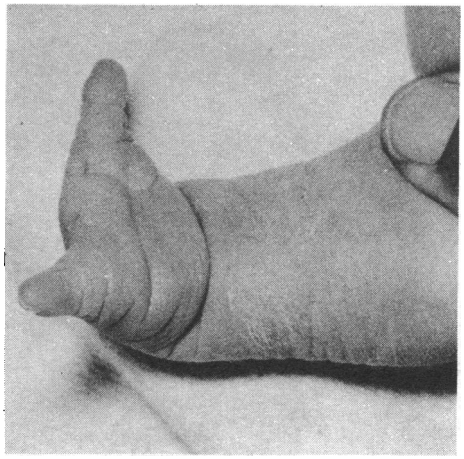
Fetal malformation after Debendox treatment in early pregnancy

SIR,—The interesting paper by Drs Dian Donnai and R Harris (18 March, p 691) reminds me of a similar case noted by myself and a paediatrician colleague, Dr R Sykes, at Sefton General Hospital, Liverpool. In this case the patient took Debendox at five weeks for 21 days and her infant was born with a malformation of the upper limb. The malformation, shown in the figure, consisted of the absence of three digits and hypoplasia of the right hand together with absence of the ipsilateral pectoralis major muscle. The condition is known as Poland's anomaly.[1] The time the drug was administered was in keeping with upper limb-bud development, which is thought to occur at 43-46 days post conception.[2 3]

The use of antiemetics, particularly in early pregnancy, demands caution at all times. Although Debendox (dicyclomine hydrochloride 10 mg, doxylamine succinate 10 mg, pyridoxine hydrochloride 10 mg) is a widely used preparation this does not exclude it from having teratogenic effects in certain cases. This was well exemplified by the thalidomide disaster. The genetic constituent of the embryo, its age, and the dose of the drug administered are all factors to be considered in subsequent teratogenesis. This case, like those of Drs Donnai and Harris, does not prove



Poland's anomaly of right hand.

Debendox to be responsible for the congenital abnormality but merely points out the possibility and strengthens the suspicion that before six weeks' gestation Debendox may have teratogenic properties.

In conclusion, avoidance of antiemetics in early pregnancy is preferable. If it is necessary to use such a drug it would seem reasonable to prescribe one with a single, relatively safe constituent such as Phenergan (promethazine). A strong criticism must be made of the pharmacological principle of using three drugs, as in Debendox, in an antiemetic preparation, particularly when none of these drugs has been completely exonerated from having teratogenic action.

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[1] Poland, A, *Guy's Hospital Reports*, 1841, **6**, 191.
[2] Smith, D W, *Recognisable Patterns of Human Malformation*, p 315. London, Saunders, 1970.
[3] Hamilton, W J, Boyd, J O, and Mossman, H W, *Human Embryology*, 4th edn, p 183. Cambridge, Heffer, 1972.

SIR,—We were interested to read the description by Drs Dian Donnai and R Harris (18 March, p 691) of three infants with gastroschisis whose mothers had taken Debendox starting 5½-6 weeks after the start of their last menstrual period. The malformations described, although by no means common, are not as rare as is suggested by the finding of a single reported case in a literature search. Three infants with severe gastroschisis and anomalies of the limbs were born in a single maternity unit delivering about 3000 babies per annum during a four-year period. In one (illustrated) the right leg was absent and there was a left clubfoot; in another the right arm was underdeveloped; and in the third there was a right clubfoot.

In our prospective study of Debendox in pregnancy[1] 372 mothers started Debendox at 6 weeks or earlier. Seven infants (1·9%) had significant malformations, but none had gastroschisis or exomphalos. Of 1620 mothers who started Debendox at or before 12 weeks, 27 (1·7%) had malformed babies. Exomphalos occurred in one infant only whose mother started Debendox at 12 weeks. There were no cases of gastroschisis.

The coincidence remains of all three mothers in the report by Drs Donnai and Harris having taken the same antiemetic, although this is difficult to interpret without further informa-